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CONFIDENTIAL*Maure H.B.*  
(one copy given to me) 25X1*Joe*

December 22, 1959

*Rec'd 12/30/59 1300**Delay A-25X1 or Silicone*

Dear Sir:

This letter report summarizes the work done under Task Order No. LL from November 14 to December 14, 1959.

During the current report period, the components for four time-delay units were fabricated, four metering tubes were selected, and the time-delay units were assembled. These units were leak tested with air, and preparations were made to fill the units with silicone fluid.

Eight metering tubes had been on flow test for 21 days using silicone fluid at an average temperature of 77-1/2 F and a pressure of 70 psi. Four of these were selected for use in the test units; these tubes had the following total flows, measured in grams: 5.315, 5.584, 5.389, and 5.533. Based on these data, a spring was designed so that the movement of the time-delay units would provide for the service delay period of one year at an average temperature of 75 F. The operation of the units will subsequently be evaluated by measuring the piston travel as the fluid is metered in the unit at controlled temperatures of 75 F and 40 F.

When the parts for the four units were completed, the units were assembled with the metering tubes and leak tested. Air at 15 psi was introduced into each unit through an O-ring plug adapter which simulated the standard cap plug, and a soapy liquid was spread over the outside surfaces of the housing to show leaks. One end cap leaked through a flaw in the casting and this leak was stopped with epoxy resin. Preparations are now being made to fill the time-delay units with silicone fluid and to begin the evaluation program.

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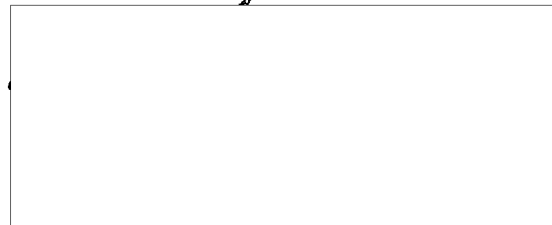
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During the next month, it is expected that the time-delay units will be filled with silicone fluid, mounted on the test stand, and placed in the controlled-temperature chamber to begin the evaluation program at a temperature of 75 F.

The original appropriation on this project was \$7,950. As of December 1, 1959, the unexpended balance was approximately \$4,900.

Sincerely,



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